

WHAT IS CLAIMED IS:

1. A pulse modulator comprising:
 - a delay arrangement for receiving a first regular
5 sequence of pulses and for delaying each received
pulse several times to obtain a plurality of regular
sequences of pulses having different phases; and
 - a selection component for receiving from said
10 delay arrangement a plurality of regular sequences of
pulses having different phases, for receiving a
modulating signal, wherein each possible value of
said modulating signal is associated to one of said
different phases, for selecting for each pulse of
15 said first regular sequence of pulses a pulse of the
respective regular sequence of pulses which sequence
of pulses has a phase associated to a current value
of said modulating signal, and for outputting said
selected pulse as part of a pulse position modulated
sequence of pulses.
- 20 2. A pulse modulator according to claim 1, wherein said
selection component is a multiplexer.
3. A pulse modulator according to claim 1, wherein said
25 delay arrangement comprises a shift register.
4. A pulse modulator according to claim 1, wherein said
delay arrangement comprises a synchronization input
for enabling a synchronization of delays applied by
30 said delay arrangement to received pulses by means of
a clock signal applied to said synchronization input.
5. A pulse modulator according to claim 1, further
comprising a pulse generator for generating a regular

sequence of pulses and for providing said generated
regular sequence of pulses as a first regular
sequence of pulses to said delay arrangement and in
addition as a clock signal to said selection
5 component.

6. A pulse modulator according to claim 5, wherein said
pulse generator further provides said generated
regular sequence of pulses as a clock signal to said
10 selection component.

7. A pulse modulator according to claim 5, wherein said
pulse generator generates said pulses with a
frequency which is equal to the frequency with which
15 values of said modulating signal are provided to said
selection component.

8. A pulse modulator according to claim 5, wherein said
pulse generator comprises a control input for
20 adapting the frequency of generated pulses to a
frequency employed for said modulating signal which
is provided to said selection component.

9. A pulse modulator according to claim 1, wherein said
25 delay arrangement comprises a control input for
adjusting delays applied by said delay arrangement to
received pulses in accordance with a frequency
employed for said modulating signal which is provided
to said selection component.

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10. A pulse modulator according to claim 4, further
comprising a clock signal generator for generating
said clock signal which is applied to said
synchronization input of said delay arrangement,

wherein said clock signal generator comprises a control input for adjusting the frequency of said clock signal in accordance with a frequency employed for a modulating signal which is provided to said selection component.

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11. A pulse modulator according to claim 1, further comprising a circuit for converting said pulse position modulated sequence of pulses output by said selection component into a corresponding pulse width modulated sequence of pulses.

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12. A modulating system comprising a pulse modulator, which pulse modulator includes:
a delay arrangement for receiving a first regular sequence of pulses and for delaying each received pulse several times to obtain a plurality of regular sequences of pulses having different phases; and
a selection component for receiving from said delay arrangement a plurality of regular sequences of pulses having different phases, for receiving a modulating signal, wherein each possible value of said modulating signal is associated to one of said different phases, for selecting for each pulse of said first regular sequence of pulses a pulse of the respective regular sequence of pulses which sequence of pulses has a phase associated to a current value of said modulating signal, and for outputting said selected pulse as part of a pulse position modulated sequence of pulses.

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13. A method of generating a modulated sequence of pulses, said method comprising the steps of:
generating a first regular sequence of pulses;

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delaying each of said generated pulses several times to obtain a plurality of regular sequences of pulses having different phases, wherein each possible value of a provided modulating signal is associated to one of said different phases;

selecting for each pulse of said first regular sequence of pulses a pulse of the respective regular sequence of pulses which sequence of pulses has a phase associated to a current value of said modulating signal; and

providing a respectively selected pulse as part of a pulse position modulated sequence of pulses.

14. A method according to claim 13, wherein the delays which are applied to said generated pulses are synchronized by a clock signal.

15. A method according to claim 13, wherein said pulses of said first regular sequence of pulses are generated with a frequency which is equal to the frequency with which values of said modulating signal are provided.

16. A method according to claim 13, wherein said pulses of said first regular sequence of pulses are generated with a frequency which is adapted to a frequency employed for said provided modulating signal.

17. A method according to claim 13, wherein the delays which are applied to said generated pulses are adjusted in accordance with said frequency employed for said provided modulating signal.

18. A method according to claim 14, wherein the frequency of said clock signal used for said synchronization is adjusted in accordance with a frequency employed for said provided modulating signal.

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19. A method according to claim 13, further comprising converting said provided pulse position modulated sequence of pulses into a corresponding pulse width modulated sequence of pulses.

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